REMARKS

Claims 1-45 are pending in this application. Claims 15, 35 and 36 are objected to due to informalities. Claims 11, 29, 36 and 45 stand rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. Claims 1-45 stand rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent No. 6,029,190 ("Oliver"). Applicant respectfully submits that no new matter has been added by the present amendment.

Claim Objections

Claims 15, 35 and 36 are amended to correct various informalities.

Claim Rejections Under 35 U.S.C. § 112

Claims 11, 29, 36 and 45 stand rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention. Applicant respectfully traverses.

Specifically, the Office Action states that claims 11, 29, 36 and 45 are allegedly in improper dependent form. The Office Action notes that a dependent claim must include every limitation of the claim on which it depends. Applicant respectfully submits that claims 11, 29, 36 and 45 include every limitation of the claims on which they depend (e.g. they include the methods recited in the independent base claims). Further, claims 11, 29, 36 and 45 specify that the methods of the independent base claims are achieved by computer executable instructions born on a computer readable medium. Accordingly, reconsideration and withdrawal of the 35 U.S.C. § 112 rejections are respectfully requested

Claim Rejections Under 35 U.S.C. § 102(e)

Claims 1-45 stand rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent No. 6,029,190 ("Oliver"). Applicant respectfully traverses.

Oliver is directed to read lock and write lock management based upon mutex and semaphore availability. Only a single thread or process can own the mutex at one time, with the other threads/processes put into a wait state until the mutex is released (Col. 1, ll. 34-36).

The semaphore is always available to read locks but will exclude write requests (Fig. 1, step 120).

Independent claim 1 recites "if said request is for a read lock, granting said request and permitting said thread to proceed unless another of said threads is writing said resource." Thus, independent claim 1 requires that another read thread cannot stop a read request from proceeding (because only a write thread can stop the read request from proceeding). The Office Action cites Oliver (Col. 3, ll. 2-3) as teaching this feature, but this portion of Oliver explicitly states that *"When the mutex is available*, it is obtained by the reader thread." (emphasis added). Thus, if the mutex is unavailable, then it cannot be obtained by the reader thread and the reader thread cannot proceed (e.g. it must wait for the mutex to become available as shown in step 112 of Fig. 1 of Oliver). If, for example, at step 110, it is determined that the mutex has been obtained by another reader thread, then the mutex will be unavailable. Thus, Oliver explicitly discloses that a read request *cannot* proceed (e.g. must wait at step 112) when the mutex has been obtained by another reader thread. This directly contradicts claim 1, which requires that another reader thread cannot stop a read request from proceeding. Thus, Applicant's claims cover a form of parallel access unknown from the reference. Therefore, Applicants respectfully submits that independent claim 1 is not anticipated by Oliver.

With respect to independent claims 12 and 30, Oliver does not teach or suggest "a write counter" which is incremented when a thread writes to a resource. As noted in the Office Action, Oliver discloses a "numReaders" variable (Col. 3, ll. 6-9) which is incremented when *reading* to a resource, but Oliver does not teach or suggest any sort of write counter. Thus, Applicant respectfully submits that independent claims 12 and 30 are not anticipated by Oliver.

With respect to independent claims 18, Oliver does not teach or suggest a first critical section that (1) is unavailable when any of the threads are writing to the resource and also (2) is always available when none of the threads are writing to the resource. Claim 37 likewise recites similar limitations with respect to sets of instructions. Oliver discloses two lock mechanisms: a mutex and a semaphore. The claimed first critical section is not analogous to the mutex because the mutex is not always available when none of the threads are writing to

the resource. For example, if the mutex has been obtained by a read thread, then the mutex will be <u>unavailable</u> even if none of the threads are writing to the resource. Also, the first critical section is not analogous to the semaphore because the semaphore is not unavailable when any of the threads are writing to the resource. For example, the semaphore is *always* available to read threads – even if another thread is writing to the resource (Oliver, Fig. 1, step 120). Thus, Applicant respectfully submits that independent claims 18 and 37 are not anticipated by Oliver.

Applicant respectfully submits that dependent claims 2-11, 13-17, 19-29, 31-36 and 38-45 are patentable at least by reason of their dependency. Accordingly, reconsideration and withdrawal of the 35 U.S.C. § 102(e) rejections are respectfully requested.

CONCLUSION

In view of the above amendment and remarks, Applicant respectfully submits that the present application is in condition for allowance. Reconsideration of the application is respectfully requested.

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